

(c) strengthening the interface by providing a nitrification process in both the core area and periphery area of the memory device subsequent to steps (a) and (b), thereby improving the reliability of the dual gate oxide in the core area.

10. (Amended) A method for fabricating a memory device on a silicon substrate, the method comprising the steps of:

(a) providing a portion of a dual gate oxide in a periphery area of the memory device;

B2 (b) simultaneously providing a dual gate oxide in a core area of the memory device and completing the dual gate oxide in the periphery area, wherein the dual gate oxide in the core area forms an interface between the oxide and the silicon substrate;

(c) strengthening the interface by providing a nitrification process in both the core area and periphery area of the memory device subsequent to steps (a) and (b), thereby improving the reliability of the dual gate oxide in the core area;

(d) depositing a layer of type-1 polysilicon in both the core area and periphery area of the memory device;

(e) depositing a layer of oxide nitride oxide over the layer of type-1 polysilicon; and

(f) removing the layer of oxide nitride oxide and a portion of the layer of type-1 polysilicon from the periphery area of the memory device.

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